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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/658, 865 05/31/96 ADACHI

H 960454

EXAMINER

26M1/1007

ART UNIT NUMBER

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DATE MAILED 6/11

7

10/07/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

See attached.

Office Action Summary	Application No. 08/658,865	Applicant(s) ADACHI
	Examiner Lester Kincaid	Group Art Unit 2611
		

Responsive to communication(s) filed on _____.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-17 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Drawings

1. **Figures 21-23** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Specification

2. The disclosure is objected to because of the following informalities: on page 2, line 20, the examiner suggests changing “three” to read --two--, to maintain consistency with the drawings. Appropriate correction is required.

Claim Objections

3. **Claims 1-3, 5, 8-11, 14, 15 and 17** are objected to because they are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. The claims include, at least, the following informalities:

- a.) as to **claims 1-3 and 5**, line 3, after “with”, the examiner suggests deleting “a”, to maintain consistency with “receiving”, or deleting “receiving” and inserting --received-- on line 4, after “a” (first occurrence);
- b.) further to **claim 1**, on line 11, after “to”, the examiner suggests inserting --the intermittent power-on type mobile over-- and on line 14, changing “duration” to read --during--, to maintain consistency with the specification;

- c.) as to **claim 2**, on line 5, the examiner suggests changing “reeady” to read --ready--, to fix an obvious spelling/typing error;
- d.) further to **claims 2 and 14**, on lines 18 and 7, respectively, the examiner suggests changing “till” to read --until--, to thereby improve the grammar;
- e.) as to **claims 3 and 15**, on lines 11 and 6, respectively, the examiner suggests changing “reporting previously” to read --previously reporting--, to maintain consistency with the specification;
- f.) as to **claims 8-11**, line 9, after “with”, the examiner suggests deleting “a”, to maintain consistency with “receiving”, or deleting “receiving” and inserting --received--, after “said”;
- g.) as to **claim 14**, line 2, the examiner suggests changing “a receive” to read --receiving--, to maintain consistency with the specification;
- h.) as to **claims 15 and 17**, on line 2, prior to “receiving” the examiner suggests deleting “a” to maintain consistency with “receiving”.

Appropriate correction is required.

Please note: that in order that the specification, and all amendments thereto, may be expeditiously handled by the office, it is common practice, and a commendable one, to consecutively number all the lines or every fifth line of each claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 5-7, 11-13 and 17** are rejected under 35 U.S.C. 102(b) as being anticipated by Tayloe et al. (U.S. Patent 5,373,506).

As to **claim 5**, Tayloe et al. disclose a radio communication system comprising:

an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period, see col. 1, lines 41-52, col. 2, lines 47-63 and Figs. 3-5; and a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state) see col. 1, lines 41-52, col. 2, lines 47-63 and Figs. 3-5;

the base station varying an emanation interval of the beacon signal to the intermittent type mobile according to a transmission data amount to the mobile, the mobile varying a receiving timing shifting its power on state according to the emanation interval. See abstract and Figs. 3-5.

As to **claims 6 and 7**, Tayloe et al. disclose everything claimed as applied above to claim 5, in addition Tayloe et al. further discloses wherein the base narrows the interval when the

transmission data amount increases (claim 6) and spreads the interval when the transmission data amount reduces (claim 7). See abstract.

As to **claims 11-13 and 17**, Tayloe et al. disclose everything claimed as applied above to claims 5-7, since the scope of each claim, merely corresponds to a part of the system of claim 5.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Leslie et al. (U.S. Patent 4,449,248) or the prior art admitted by the Applicant in view of Messenger (U.S. Patent 5,276,680).

As to **claim 1**, each of Leslie et al. and the Applicant disclose a (prior art) radio communication system comprising: an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period; and a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state). See Leslie et al. col. 1, lines 48-66 and Applicant's admission from page 1, line 25 through page 3, line 8 and Figs. 21-22

of the specification. Each disclosure fails to explicitly recite wherein the base station preferentially transmits data to the intermittent type mobile over a normal mobile in a normally powered on state, when the data to be transmitted to the intermittent type mobile exists during the data receive-ready period.

In an analogous art, Messenger discloses wherein a base station separates data to be transmitted to a normal type station in a normally powered on state from data to be transmitted to an intermittent type mobile station, wherein the base station preferentially transmits data to the intermittent type mobile over a normal mobile in a normally powered on state, when the data to be transmitted to the intermittent type mobile exists during the data receive-ready period, for the (implied) purpose of optimizing system latency by assuring that the base station transmits data to the intermittent type mobiles as soon and efficiently as possible. See col. 6, lines 10-39 and col. 8, lines 12-21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify either prior art system by specifically operating the base station to preferentially transmit data to the intermittent type mobile over a normal mobile in a normally powered on state, when the data to be transmitted to the intermittent type mobile exists during the data receive-ready period of the intermittent type mobile, as taught by Messenger, for the purpose of optimizing system latency by assuring that the base station transmits data to the intermittent type mobiles as soon and efficiently as possible.

Claim 8, reads on the base station as applied above to claim 1.

8. **Claims 2-3, 9-10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont (U.S. Patent 5,535,207).**

As to **claim 2**, Dupont discloses a radio communication system comprising:

an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period (see col. 1, lines 42-56 and/or any pattern of Fig.2); and

a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state), (see col. 4, lines 24-28 and col. 2, lines 35-42);

the base station reporting information to the intermittent type mobile, (see col. 7, lines 31-35);

the intermittent mobile adjusting its power-on state to receive all pieces of data transmitted continuously from the base station, see col. 2, lines 34-42.

Dupont fails to explicitly recite wherein the information reported from the base station to the intermittent type mobile includes “time extension information” that data must be received beyond the data receive-ready period and that the intermittent mobile sustains its power-on state until all pieces of the data transmitted continuously from the base are received, when the mobile has received time extension information from the base. However, given that when information to be transmitted to the mobile would exceed the amount of time available in the fixed (current) receive-ready period (such as line 5 of Fig.2), the transmission could clearly not be completed to the mobile in the receive-ready period, thereby increasing message latency, and that Dupont

teaches the concept of reducing latency (when desired) of delivering messages, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dupont by specifically programming the base station to report, as time extension information, that data must be received beyond the data receive-ready period, when data is transmitted continuously beyond the period wherein the mobile sustains its power-on state until all pieces of the continuously transmitted data are received, in response thereto, to thereby provide the user of the mobile the information necessary to reduce latency of transmitted messages regardless of their length, as suggested by Dupont in Fig.2.

As to **claim 3**, Dupont discloses a radio communication system comprising:

an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period (see col. 1, lines 42-56 and/or any pattern of Fig.2); and

a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state), (see col. 4, lines 24-28 and col. 2, lines 35-42);

the base station previously reporting transmission information , (see col. 7, lines 31-35) and transmitting the data within a predetermined period of time after completion of the (initial) data receive-ready period when data included in the transmission can not be transmitted during the receive-ready period (reads on extending the active time slot length, as shown in Fig.2, key patterns 9-11);

the intermittent mobile sustaining its power-on state when (received) data included the transmission data previously reported, and then extending the data receive-ready period by the predetermined period of time (Fig. 2, last row, for example). See also, col. 5, lines 10-19, col. 6, lines 7-27 and col. 8, lines 1-38.

Dupont fails to explicitly recite wherein the information transmitted from the base station to the intermittent type mobile includes information regarding data to be transmitted to the intermittent power-on type mobile during the data receive-ready period. However, given that when information to be transmitted to the mobile exceeded the amount of time available in the fixed (current) receive-ready period (such as line 5 of Fig. 2), the transmission could clearly not be completed to the mobile in the receive-ready period, thereby increasing message latency, and that Dupont teaches the concept of reducing latency (when desired) of delivering messages, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dupont by specifically programming the base station to transmit information including information regarding data to be transmitted to the intermittent power-on type mobile during the data receive-ready period to thereby provide the user of the mobile the information necessary to reduce latency of transmitted messages regardless of their length, as suggested by Dupont in Fig. 2.

As to claim 4, Dupont, as modified above with respect to claim 3, discloses everything claimed and additionally discloses wherein the mobile shifts to its power-off state when all data has been received. See Fig. 2.

As to **claims 9-10 and 14-16**, the modified system of Dupont discloses everything claimed as applied above to claims 2-3, since the scope of each claim, merely corresponds to a part of the system of claims 2-3

9. **Claims 2-3, 9-10 and 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaskill (U.S. Patent 5,629,940).

As to **claim 2**, Gaskill discloses a radio communication system comprising:
an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period (time slot A, Fig.3), see col. 1, lines 46-61, col. 2, lines 12-29; and

a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state), see col. 5, lines 61-67;

the base station reporting as time extension information that data must be received beyond the data receive-ready period, to the intermittent type mobile, when data is transmitted continuously beyond the data receive-ready period, see col. 4, lines 5-13 and col. 6, lines 9-10;

the intermittent mobile sustaining its power-on state (in all designated periods) until all pieces of the data transmitted from the base are received, when the mobile has received time extension information from the base, see col. 4, lines 13-51. Gaskill fails to explicitly recite an embodiment wherein the transmitted (message) data is continuously directed to a particular

mobile, wherein the mobile (continuously) sustains its power-on state. It is considered that although the specific examples shown by Gaskill (Figs. 4 and 8) teach the ability to transmit and receive long message data in noncontiguous time frames, thus allowing for more freedom and flexibility, at the expense of system complexity, in transmitting long messages, it would have been obvious to one of ordinary skill in the art at the time the invention was made to send the data continuously wherein the mobile would (continuously) sustain its power-on state, for the purpose of reducing the overhead associated with the added complexity of the system.

As to **claim 3**, Gaskill discloses a radio communication system comprising:
an intermittent power-on type mobile for shifting to a power-on state in synch with receiving timing of a beacon signal, with a fixed period of time after receiving the beacon signal being a data receive-ready period (time slot A, Fig.3), see col. 1, lines 46-61, col. 2, lines 12-29; and

a base station for regularly emanating a beacon signal to the intermittent type mobile and communicating with the mobile by radio while the mobile is controlled (to be in the power-on state), see col. 5, lines 61-67;

the base station previously reporting transmission information, regarding data to be transmitted to the mobile during the ready period and transmitting the data within a predetermined period of time after completion of the data receive-ready period when data included in the transmission can not be transmitted during the receive-ready period, see col. 4, lines 5-13 and col. 6, lines 9-10;

the intermittent mobile sustaining its power-on state (in all designated periods), when (received) data included the transmission data previously reported, and then extending the data receive-ready period by the predetermined period of time. Gaskill fails to explicitly recite an embodiment wherein the transmitted (message) data is continuously directed to a particular mobile, wherein the mobile (continuously) sustains its power-on state. It is considered that although the specific examples shown by Gaskill (Figs. 4 and 8) teach the ability to transmit and receive long message data in noncontiguous time frames, thus allowing for more freedom and flexibility, at the expense of system complexity, in transmitting long messages, it would have been obvious to one of ordinary skill in the art at the time the invention was made to send the data continuously wherein the mobile would (continuously) sustain its power-on state, for the purpose of reducing the overhead associated with the added complexity of the system.

As to **claim 4**, Gaskill, as modified above with respect to claim 3, discloses everything claimed and additionally discloses wherein the mobile shifts to its power-off state when all data has been received. See col. 4, lines 39-43 and Fig.3.

As to **claims 9-10 and 14-16**, the modified system of Gaskill discloses everything claimed as applied above to claims 2-3, since the scope of each claim, merely corresponds to a part of the system of claims 2-3

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Borras (U.S. Patent 5,128,938) provides for a communication system wherein the emanation interval is based on the amount of data transmitted to a particular subscriber.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lester G. Kincaid whose telephone number is (703) 306-3016. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of the bi-week) from 7:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reinhard Eisenzopf, can be reached at (703) 305-4711.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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Any response to this action should be mailed to:

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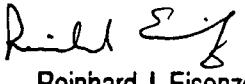
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Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).


LGK/lgk
September 28, 1997


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